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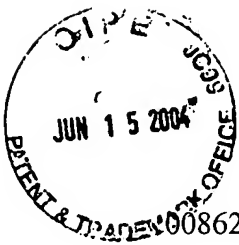
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2813
ifu

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	
	:	Examiner: Thanh T. Nguyen
TAKAO YONEHARA, ET AL.)	
	:	Group Art Unit: 2813
Application No.: 10/059,171)	
	:	
Filed: January 31, 2002)	
	:	
For: METHOD OF MANUFACTURING)	
A THIN-FILM SEMICONDUCTOR	:	
DEVICE USED FOR A DISPLAY)	
REGION AND PERIPHERAL	:	
CIRCUIT REGION (As Amended))	June 15, 2004

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

LETTER

Sir:

Enclosed for the Examiner's consideration is a copy of an Office Action dated March 1, 2004, in co-pending U.S. Application No. 10/059,144, and copies of Office Actions dated November 5, 2002, and March 27, 2003 in Application No. 10/059,116, now U.S. Patent No. 6,677,183.

The documents cited in the Office Actions were previously cited in the Information Disclosure Statements dated January 9, 2003, and May 24, 2004. In addition, U.S. Application Nos. 10/059,144 and 10/059,116, and U.S. Patent No. 6,677,183, were previously cited in the Information Disclosure Statements dated August 15, 2002, and May 24, 2004. Accordingly a Form PTO-1449 does not accompany this Letter.

No fee is believed due, however, the Commissioner is hereby authorized to charge any fee which may be required in connection with this paper to Deposit Account No. 06-1205.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our address given below.

Respectfully submitted,



Attorney for Applicants
Damond E. Vadnais
Registration No. 52,310

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3800
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DEV/vc

DC_MAIN 168849v1



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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Washington, D.C. 20231
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/059,116	01/31/2002	Kiyofumi Sakaguchi	00862.022497	8415

5514 7590 11/05/2002

FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

LE, THAO X

ART UNIT

PAPER NUMBER

2814

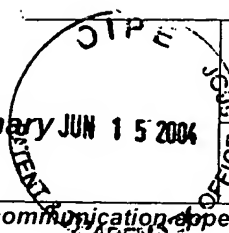
DATE MAILED: 11/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

FORMAL DRAWING
CORRECTION REQUIRED
FILED

FILE NO. 00161.022497
ATTORNEY WJN
FILING DATE 2/5/03
DOCKETED 11/11/03 gw

Office Action Summary



Application No.

10/059,116

Applicant(s)

SAKAGUCHI ET AL.

Examiner

Thao X Le

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 20 and 22 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21 is/are allowed.
- 6) ☐ Claim(s) 1-11 and 13-18 is/are rejected.
- 7) ☒ Claim(s) 12 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 and 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions ✓

1. Applicant's election with traverse of claims 1-19 and 21 in Paper No. 5 is acknowledged. The traversal is on the ground(s) that claims are not so different, thus there is no burden in examining of both group. This is not found persuasive because the Applicant has not provided a convincing argument that materially different processes would not be suitable in producing the recited device. It is submitted that the materially different processes would be suitable. Finally the search is not coexisting as evidenced by the different classes for the process and product as cited in the restriction mailed on 07/15/02.

The requirement is still deemed proper and is therefore made FINAL.

Specification ✓

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Drawings ✓

3. Figures 4A-4C should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Double Patenting ✓

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-7, 13-15 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of copending Application No. 10/059,144 (US Pub 2002/0100914) in view of Applicant Admitted Prior Art (APA).

The subject matter claimed in the instant application is fully disclosed in the referenced co-pending application and would be covered by any patent granted on that co-pending

application since the referenced co-pending application and the instant application are claiming common subject matter, as follows:

Both applications claim the method of manufacturing thin-film semiconductor device comprising a semiconductor film having a semiconductor element and/or semiconductor integrated circuit, the separation step of separating the member. But the co-pending application does not disclose the step of forming kerfs from the semiconductor film side of the member. However, the APA discloses the step of forming kerfs 19 from the semiconductor film side of the member prior to the separation step. Therefore, it would have been obvious to use the kerfs formation teaching of APA with co-pending application in order to perform the separation step.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

7. Claims 1, 8-11 and 16-17 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6465329 to Glenn.

Regarding to claim 1, Glenn discloses a method of manufacturing a thin-film semiconductor device, comprising: the step of preparing a member having, on a separation layer 34, a semiconductor film 3 having a semiconductor element and/or semiconductor integrated circuit (IC) 2, fig. 7, the step of forming kerfs 32 from the semiconductor film side of the member, and the separation step of, after the kerfs formation step, separating a desired region of the semiconductor element and/or semiconductor IC from the member, fig. 8.

Regarding to claims 8-11, 16-17 Glenn discloses the method wherein the kerfs 32 are formed in the semiconductor film 3, in the processed of forming the semiconductor element, wherein the kerks are formed by dicing, column 7 line 34, wherein the bottom portions thereof are located in the separation layer, wherein the desired region is formed into a plurality of chips by the separation step, fig. 7.

Allowable Subject Matter

8. Claim 21 is allowed.

- The prior art does not disclose all the limitations in claim 21 including forming a cracks in the separation layer to separate each of the partition chip regions from the base.

Art Unit: 2814

9. Claims 12 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

- With respect to claim 12, the prior art fail to disclose all the limitation in claim 12 including the member has the separation layer and semiconductor film on a semiconductor region, and the kerfs are formed such that bottom portions thereof are located at the interface between the separation layer and the semiconductor region.
- With respect to claim 19, the prior art fail to disclose all the limitation in claim 19 including the member is formed again using a remaining member that is left after the desired region is separated from the member.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao X Le whose telephone number is 703-306-0208. The examiner can normally be reached on M-f from 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael M Fahmy can be reached on 703-308-4918. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Application/Control Number: 10/059,116
Art Unit: 2814

Page 7

Thao X. Le
October 28, 2002



PHAT X. CAO
PRIMARY EXAMINER

Notice of References Cited

Application/Control No.

10/059,116

Applicant(s)/Patent Under
Reexamination
SAKAGUCHI ET AL.

Examiner

Thao X Le

Art Unit

2814

Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6465329	10-2002	Glenn	438/462
	B	US-2002/0076904	06-2002	Imler, William R.	438/462
	C	US-6,075,280	06-2000	Yung et al.	257/620
	D	US-6,186,384	02-2001	Sawada, Hiroshi	225/2
	E	US-6,136,668	10-2000	Tamaki et al.	438/462
	F	US-2002/0100941	08-2002	Yonehara et al.	257/98
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

PTO 1293 (modified)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)
(Use several sheets if necessary)

ATTY DOCKET NO.

00862.022497

APPLICATION NO.

10/059,116

APPLICANT

KIYOFUMI SAKAGUCHI, et al.

FILING DATE

January 31, 2002

GROUP

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
TL	6,190,937	02/20/2001	Nauagawa, et al.	438	67	
	6,222,513	03/10/1998	Howard, et al.	345	84	
	6,258,698	07/10/2001	Iwasaki, et al.	438	455	
	6,306,729	10/23/2001	Sauaguchi, et al.	438	458	
	6,331,208	12/18/2001	Nishida, et al.	117	89	
	6,342,433	01/29/2002	Ohmi, et al.	438	455	
	6,382,292	05/07/2002	Ohmi, et al.	156	584	

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
EP	1 122 794	08/08/2001	Europe			
EP	850 110	06/12/1998	Europe			
EP	849 788	06/24/1998	Europe			
TL JP	11-316397	11/16/1999	Japan	G02F		Abstract

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

TL	Shimoda, T., et al: "Surface Free Technology By Laser Annealing (SUFTLA)" International Electron Devices Meeting 1999. IEDM. Technical Digest. Washington, DC, Dec. 5-8, 1999, New York, NY: IEEE, US, Aug. 1, 1999 (1999-08-01), pages 289-292, XP000933199 ISBN: 0-7803-5411-7.
EXAMINER	DATE CONSIDERED 17 Oct. 02

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 1 of 1

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

LIST OF REFERENCES CITED BY APPLICANT(S)
(Use several sheets if necessary)

ATTY DOCKET NO.
00862.022497

APPLICATION NO.
Not Yet Assigned

APPLICANT

Kiyofumi Sakaguchi, et al.

FILING DATE

Currently herewith

GROUP

Not Yet Assigned

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>TL</i>	5,206,749	4/27/93	Zavracky et al.	359	59	
<i> </i>	5,256,562	10/26/93	Vu et al.	437	86	
<i> </i>	5,811,348	9/22/98	Matsushita, et al.	438	455	
<i> </i>	6,107,213	8/22/00	Tayanaka, et al.	438	762	
<i> </i>	5,985,742	11/16/99	Henley, et al.	438	515	
<i>TL</i>	5,856,229	1/5/99	Sakaguchi, et al.	438	406	

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
<i>TL</i>	9-312349	12/2/97	Japan			Abstract
<i>TL</i>	886 300	12/23/98	EP			

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER

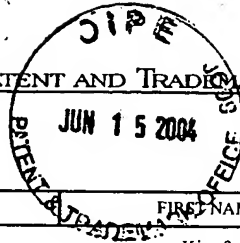
DATE CONSIDERED

12 Oct-02

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



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UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/059,116	01/31/2002	Kiyofumi Sakaguchi	00862.022497	8415

5514 7590 03/27/2003
FITZPATRICK CELLA HARPER & SCINTO
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NEW YORK, NY 10112

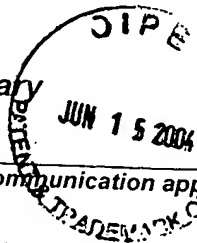
EXAMINER	
LE, THAO X	
ART UNIT	PAPER NUMBER

2814

DATE MAILED: 03/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

00862.022497
CAN
6/27/03
4/2/03
4/7/03

Office Action Summary

Application No.

10/059,116

Applicant(s)

SAKAGUCHI ET AL.

Examiner

Thao X Le

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 8-12, 14-15, 17-19, 21 is/are rejected.
- 7) ☒ Claim(s) 5, 7, 13 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of claims 12, 19 and 21 are withdrawn in view of the newly discovered reference(s) to Tamaki. Rejections based on the newly cited reference follow.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: A method of separation of semiconductor device.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation 'after forming a protective film on inner walls of pores in the porous layer' is unclear.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2814

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-3, 6, 8-12, 14-15, 17-19, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6136668 to Tamaki et al.

Regarding to claim 1, 21, Tamaki discloses a method of manufacturing a thin film semiconductor device fig. 40-42, comprising: a step of preparing a member having on a separation layer 31, a semiconductor film 1 having a semiconductor element and/or semiconductor integrated circuit 3, a step of forming kerfs from the semiconductor film side of the member, fig. 41, and a separation step of, after the kerf formation step, separating a desired region of the semiconductor element, column 2 line 25-50.

But Tamaki does not expressly disclose the method comprises forming cracks in the separation layer.

However, Tamaki discloses the separation layer 31 is dissolved to separate the semiconductor chip, column 2 line 42. Therefore, it would have been obvious in this

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dissolving process that cracks are being formed in order to separate the semiconductor device from the plate.

Regarding to claims 2, 14-15, 17, Tamaki discloses the method comprises the step of injecting a fluid into the kerfs; the fluid fills the grooves by dipping in organic solvent, fig. 42.

Regarding to claims 3, 6, 8-12, 18-19 Tami discloses the method further comprises forming a porous layer 31 on the surface of a semiconductor substrate, forming the semiconductor film 1 on the porous layer 31 and forming the semiconductor element 3, fig. 40, wherein the semiconductor substrate 1 is a single-crystal silicon, column 1 line 32, wherein the kerfs are formed in the semiconductor film by etching, fig. 41, column 2 line 40, wherein the kerfs are formed such that bottom portions thereof are located in the separation layer, fig. 41. Obviously the remaining member 21 can be re-used.

Allowable Subject Matter

5. Claims 5, 7, 13, 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

a. With respect to claim 5 and 7, the prior art of record fails to disclose all the limitations of claim 5 and 7 including implanting ion from the surface side to predetermined depth to form the separation layer.

b. With respect to claims 13, 16 the prior art fail to disclose all the limitation in claim 13 including the separation step is performed by injecting a high-pressure fluid from the kerfs and static pressure.

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Response to Arguments

6. Applicant's arguments with respect to claims 1-19 and 21 have been considered but are moot in view of the new ground(s) of rejection.

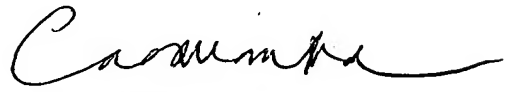
Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao X Le whose telephone number is 703-306-0208. The examiner can normally be reached on M-F from 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael M Fahmy can be reached on 703-308-4918. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Thao X. Le
March 7, 2003


PHAT X. CAO
PRIMARY EXAMINER

Notice of References Cited	Application/Control No. 10/059,116	Applicant(s)/Patent Under Reexamination SAKAGUCHI ET AL.	
	Examiner Thao X Le	Art Unit 2814	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6,136,668	10-2000	Tamaki et al.	438/462
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
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	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
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	S					
	T					

NON-PATENT DOCUMENTS

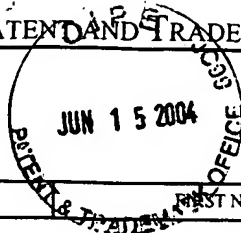
*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/059,144	01/31/2002	Takao Yonehara	00862.022498	5995

5514 7590 03/01/2004

FITZPATRICK, CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

KEBEDE, BROOK

ART UNIT PAPER NUMBER

2823

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

FORMAL DRAWING
CORRECTION REQUIRED
FILED

00862-022498

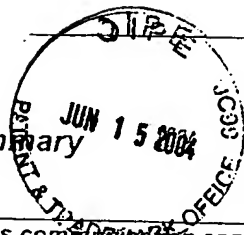
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6/1/04

3/1/04

3/10/04

Office Action Summary



Application No.

10/059,144

Applicant(s)

YONEHARA ET AL.

Examiner

Brook Kebede

Art Unit

2823

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 11 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 10 is/are rejected.
- 7) ☒ Claim(s) 8 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Applicants' election with traverse of the Group I invention, claim(s) 1-10 in the response filed on November 3, 2003, is acknowledged. The traversal is on the ground(s) that "there would not be undue burden in examining the two groups of claims in a single application. In particular, MPEP § 808 makes clear that in order to require restriction between independent or distinct inventions, reasons for insisting upon a restriction requirement, such as undue burden, must also be shown. In the present instance, it is not believed that there would be undue burden in examining the two groups of claims in a single application, since the two groups of claims are not so different as would require a burden on the Examiner that is significantly beyond that of the normal burdens of examination." This is not found persuasive. A restriction requirement between one set of product claims and a set of process claims was issued in the Office action that was mailed on September 29, 2003. "Section 121 [of Title 35 USC] permits a restriction for 'independent and distinct inventions,' which the PTO construes to mean that the sets of claims must be drawn to separately patentable inventions." See *Applied Materials Inc. v. Advanced Semiconductor Materials* 40 USPQ2d 1481, 1492 (Fed. Cir 1996)(Archer, C.J., concurring in-part and dissenting in-part). A product and the process of making the product are "two independent, albeit related inventions." See *In re Taylor*, 149 USPQ 615, 617 (CCPA 1966). "When two sets of claims filed in the same application are patentably distinct or represent independent inventions, the examiner is to issue a restriction requirement." See *In re Berg*, 46 USPQ2d 1226, 1233 n.10 (Fed. Cir. 1998).

The examiner, in issuing a restriction requirement, must demonstrate "one way distinctiveness." *Applied Materials Inc.* at 1492. As stated within the restriction requirement, "inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f))." In this application, the examiner restricted the product claims from the process claims on the grounds that "the product as claimed can be made by another and materially different process such as a process wherein ion implantation process can be performed instead of using pressure of a fluid during separation step of separating the member at separation layer in order to process device of Group II, (i.e., Smart Cut process)" and that, as a result, a restriction was necessary.

In addition to one way distinctiveness, the examiner must show "why it would be a burden to examine both sets of claims." *Applied Materials Inc.* at 1492. "A serious burden on the examiner may be *prima facie* shown if the examiner shows by appropriate explanation either separate classification, separate status in the art, or a different field of search." MPEP 803. An explanation was provided in the restriction requirement. Specifically, in addition to being distinct, the examiner indicated that restriction is proper because the product claims and the process claims "have acquired a separate status in the art."

The criteria of distinctness and burdensomeness have been met, as demonstrated hereinabove. Accordingly, the restriction requirement in this application is still deemed proper and is therefore **made FINAL**.

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2. Claims 11 and 12 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention, the requirement having been traversed in the response filed on November 3, 2003.

Priority

3. Acknowledgment is made of applicants' claim for foreign priority based on an application filed in Japan on January 31, 2001. It is noted, however, that applicant has not filed a certified copy of the 2001-023847 application as required by 35 U.S.C. 119(b).

Status of the Claims

4. Claims 1-12 are pending in the application.
5. Claims 11 and 12 are withdrawn from further consideration by the examiner as indicated in Paragraph 2 herein above.
6. Claims 1-10 are treated on the merits as set forth herein below.

Drawings

7. Figures 6A-6C should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

8. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: --METHOD OF MANUFACTURING THIN-FILM SEMICONDUCTOR DEVICE--.

Claim Objections

9. Claims 1 and 10 are objected to because of the following informalities:

Claim 1 recites the limitation "the step of preparing a member" in line 3. The Examiner suggests to change "~~the~~ step of preparing a member" to -- a step of preparing a member-- in order to establish proper antecedent basis. Appropriate correction is required.

Claim 1 recites the limitation "the separation step of separating" in line 6. The Examiner suggests to change "~~the~~ separation step of separating" to -- a separation step of separating-- in order to establish proper antecedent basis. Appropriate correction is required.

Claim 1 recites the limitation "the chip forming step" in line 8. The Examiner suggests to change "~~the~~ chip forming step" to -- a chip forming step-- in order to establish proper antecedent basis. Appropriate correction is required.

Claim 10 recites the limitation "the step of preparing a member" in line 3. The Examiner suggests to change "~~the~~ step of preparing a member" to -- a step of preparing a member-- in order to establish proper antecedent basis. Appropriate correction is required.

Claim 10 recites the limitation "the chip forming step" in line 6. The Examiner suggests to change "~~the~~ chip forming step" to -- a chip forming step-- in order to establish proper antecedent basis. Appropriate correction is required.

Claim 10 recites the limitation "the separation step" in line 8. The Examiner suggests to change "~~the~~ separation step" to -- a separation step-- in order to establish proper antecedent basis. Appropriate correction is required.

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 1-7 and 10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,677,183. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons:

Re claim 1, the scope of the claimed limitation of the instant application is essentially the same as the claimed limitations of claims 1 and 15 of U.S. Patent No. 6,677,183. The limitations include a method of manufacturing a thin-film semiconductor device, comprising: the step of preparing a member having a semiconductor film with a semiconductor element semiconductor integrated circuit on a separation layer (see Claim 1, lines 1-5); the separation step of separating the member at the separation layer by a pressure of a fluid (see Claim 1, lines 8-13); and the chip forming step after the separation step, forming the semiconductor film into chips (see Claim 15, lines 1-2).

Re claim 2, as applied to claim 1 above, the scope of the claimed limitation of the instant application is essentially the same as the claimed limitations of claims 1 and 15 of U.S. Patent No. 6,677,183. In addition, the limitations wherein the member is obtained by forming a porous layer on a surface of a semiconductor substrate, forming the semiconductor film on a surface of

the porous layer, and then forming the semiconductor element and/or semiconductor integrated circuit is claimed in Claim 3 of U.S. Patent No. 6,677,183 (see Claim 3, lines 1-5).

Re claim 3, as applied to claims 1 and 2 above, the scope of the claimed limitation of the instant application is essentially the same as the claimed limitations of claims 1, 3, and 15 of U.S. Patent No. 6,677,183. Further the limitation, wherein the semiconductor film is formed on the surface of the porous layer after forming a protective film on inner walls of pores in the porous layer is claimed in Claim 4 of U.S. Patent No. 6,677,183 (see Claim 4, lines 1-6).

Re claim 4, as applied to claim 1 above, the scope of the claimed limitation of the instant application is essentially the same as the claimed limitations of the instant application is essentially the same as the claimed limitations of claims 1 and 15 of U.S. Patent No. 6,677,183. Furthermore, the limitation, wherein the member is obtained by forming the semiconductor element and/or semiconductor integrated circuit on a surface of a semiconductor substrate and implanting ions from the surface side to a predetermined depth to form the separation layer is claimed in Claim 18 of U.S. Patent No. 6,677,183 (see Claim 18, lines 12-16).

Re claim 5, as applied to claims 1 and 2 above the scope of the claimed limitation of the instant application is essentially the same as the claimed limitations of claims 1, 3, and 15 of U.S. Patent No. 6,677,183. Further the limitation, wherein the semiconductor substrate is a single-crystal silicon substrate or a compound semiconductor substrate is claimed in Claim 5 of U.S. Patent No. 6,677,183 (see Claim 5, lines 1-3).

Re claim 6, as applied to claims 1 and 4 above, the scope of the claimed limitation of the instant application is essentially the same as the claimed limitations of claims 1, 15 and 18 of U.S. Patent No. 6,677,183. In addition, the limitation wherein the semiconductor substrate is a

single-crystal silicon substrate or a compound semiconductor substrate is claimed in Claim 5 of U.S. Patent No. 6,677,183 (see Claim 5, lines 1-3).

Re claim 7, as applied to claims 1, 2 and 5 above, the scope of the claimed limitation of the instant application is essentially the same as the claimed limitations of claims 1, 3, and 15 of U.S. Patent No. 6,677,183. Further, the limitation wherein the separation step is executed by applying the pressure of the fluid to the separation layer also claimed in Claims 10, 12 and 13 of U.S. Patent No. 6,677,183 (see Claim 10, lines 1-6, Claim 12, lines 1-3, Claim 13, lines 1-3).

Re claim 10, the scope of the claimed limitation of the instant application is essentially the same as the claimed limitations of claims 1 and 15 of U.S. Patent No. 6,677,183. The limitations include a method of manufacturing a thin-film semiconductor device, comprising: the step of preparing a member having a semiconductor film with a semiconductor element and/or semiconductor integrated circuit on a separation layer (see Claim 1, lines 8-13); the chip forming step of forming the member into chips in desired regions; and the separation step of, after the chip forming step, separating the member at the separation layer (see Claim 15, lines 1-2).

Therefore, the conflicting claims are not patentably distinct from each other.

Allowable Subject Matter

12. Claims 8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record neither anticipates nor renders obvious the claimed subject matter of the instant application as a whole either taken alone or in combination, in particular, prior art

of record does not teach "wherein after the separation step, the separation layer remaining on the semiconductor film side is removed, and then, the chip forming step is executed," as recited in claim 8 and "wherein after the separation step and the chip forming step, the step of removing the separation layer remaining on the semiconductor film side is executed," as recited in claim 9.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure Fonstad, Jr. et al. (US/6,455,398), Nakagawa et al. (US/6,500,731), Fukunaga (US/6,602,761), and Iwane et al. (US/6,682,9900) also disclose similar inventive subject matter.

Fonstad, Jr. et al. (US/6,455,398) discloses method of bonding a silicon substrate to group III-V material substrate, the method includes annealing the substrate and thinning the substrate.

Nakagawa et al. (US/6,500,731) disclose a method of fabricating a semiconductor device a method includes forming a porous separation layer having prularity semiconductor layers which the semiconductor device separately formed on each the semiconductor layers.

Fukunaga (US/6,602,761) discloses process for fabricating an SOI substrate and the process includes forming single crystal silicon substrate and anodizing the single silicon substrate in order to form porous regions.

Iwane et al. (US/6,682,9900) disclose separation method of semiconductor layer and producing a solar cell.

However, the prior art fail to anticipate or render obvious the claimed limitation of the instant application as recited in claims 8 and 9 either taken alone or in combination.

Art Unit: 2823

Correspondence

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brook Kebede whose telephone number is (571) 272-1862. The examiner can normally be reached on 8-5 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on (571) 272-1855. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brook Kebede
Examiner
Art Unit 2823

Brook Kebede

BK
February 2, 2004

Notice of References Cited

Application/Control No.

10/059,144

Applicant(s)/Patent Under
Reexamination
YONEHARA ET AL.

Examiner

Brook Kebede

Art Unit

2823

Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6,455,398	09-2002	Fonstad et al.	438/459
	B	US-6,500,731	12-2002	Nakagawa et al.	438/455
	C	US-6,602,761	08-2003	Fukunaga, Takeshi	438/459
	D	US-6,677,183	01-2004	Sakaguchi et al.	438/113
	E	US-6,682,990	01-2004	Iwane et al.	438/458
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	G	US-			
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	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
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NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).) .
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY DOCKET NO.

00862.022498

APPLICATION NO.

Not Yet Assigned

LIST OF REFERENCES CITED BY APPLICANT(S)
(Use several sheets if necessary)

APPLICANT

Taka Yonehara, et al.

FILING DATE

Currently herewith

GROUP

Not Yet Assigned

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
Bu	5,206,749	4/27/93	Zavracky et al.	359	59	
Ku	5,256,562	10/26/93	Vu et al.	437	86	
Bu	5,811,348	9/22/98	Matsushita, et al.	438	455	
Bu	6,107,213	8/22/00	Tayanaka, et al.	438	762	
Bu	5,985,742	11/16/99	Henley, et al.	438	515	
Bu	5,856,229	1/5/99	Sakaguchi, et al.	438	406	

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
9-312349	12/2/97	Japan			Abstract
886 300	12/23/98	EP			

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER

Brown Kebede

DATE CONSIDERED

2/2/2004

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 1 of 1

FORM PTO, 1449 (modified)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY DOCKET NO. 00862.022498.

APPLICATION NO 10/059,144

LIST OF REFERENCES CITED BY APPLICANT(S)
(Use several sheets if necessary)

APPLICANT TAKAO YONEHARA, et al.

FILING DATE January 31, 2002

GROUP 2812

JAN 10 2003

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
BU	6,075,280	06/13/00	Yung et al.	257	620	
BU	6,136,668	10/24/00	Tamaki, et al.	438	462	
BU	6,186,384	02/13/01	Sawada	225	2	
BU	6,465,329	10/15/02	Glenn	438	462	
BU	2002/0076904	06/20/02	Imler	438	462	
BU	2002/0100941	08/01/02	Yonehara, et al.	257	359	

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER

BOTH Khech

DATE CONSIDERED

2/2/2004

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 1 of 1

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

AUG 19 2002

PRIORITY DOCKET NO. 00862.022498

APPLICATION NO. 10/059,144

LIST OF REFERENCES CITED BY APPLICANT(S)
(Use several sheets if necessary)

APPLICANT TAKAO YONEHARA, et al.

FILING DATE January 31, 2002

GROUP 2812

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
Bu	6,190,937	02/20/2001	Nauagawa, et al.	438	67	
Bu	6,222,513	03/10/1998	Howard, et al.	345	84	
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